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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Rod Walsh

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EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

10/01/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/517,965	<b>Applicant(s)</b> WALSH ET AL.	
	<b>Examiner</b> MARIVELISSE SANTIAGO-CORDERO	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 9 and 15 are objected to because of the following informalities: the term “DVB-T SI” is an acronym, which can mean different things and/or change in meaning over time; hence, it would be desirable to write out the actual words to which the acronym refers. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-5, 11-13, 21-24, and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2-4 and 11-12, the term “providing said data as a function of ...” is unclear. Specifically, it is not clear what is meant by the term “as a function” and the specification does not clarify this issue.

Regarding claims 21-29, the term "in dependence on a relationship that is a function of the values of said parameters"(claims 21 and 25) is unclear. Specifically, it is not clear what is meant by the term “on a relationship that is a function of the values” and the specification does not clarify this issue. The claimed relationship and the claimed values are uncertain.

Claim 27 recites the limitation "the elliptical cell configuration" in line 2. There is insufficient antecedent basis for this limitation in the claim. For examination on the merits, claim 27 will be assumed to depend from claim 26 in order to be consistent with claim terminology.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-5 and 21-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In order for a method to be considered a "process" under §101, a claimed process must either: (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials). *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method is not a patent eligible process under §101 and is non-statutory subject matter. With respect to claims 1-5 and 21-24, the claim language does not include the required tie to another statutory class or involves a transformation, and thus is directed to nonstatutory subject matter.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 5, 10, 12-13, 19-21, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Talaro (US Patent No.: US 5,633,913).

Regarding claim 1, Talaro discloses a method of approximating cell geometry corresponding to a cell coverage area in a cellular transmission system, comprising providing

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data corresponding to first and second circular parameters for the coverage area of the cell (Figs. 2-3; col. 5, line 55 through col. 6, line 33).

Regarding claim 3, Talaro discloses a method according to claim 1 (see above), including providing said data as a function of characteristics of relatively large and small circles (Figs. 2-3; col. 5, line 55 through col. 6, line 33).

Regarding claim 12, which recite similar limitations to those of claim 2, see rationale as explained above.

Regarding claim 5, Talaro discloses a method according to claim 3 (see above), including providing data corresponding to the centers of the circles (Fig. 3, reference P0; col. 5, line 55 through col. 6, line 33).

Regarding claim 13, which recite similar limitations to those of claim 5, see rationale as explained above.

Regarding claim 10, Talaro discloses a user equipment (Figs. 6, 8, 10-11, references 1 and 3 and/or 18 and 9) for use in a cellular transmission system, comprising a processor configuration to provide data corresponding to first and second circular parameters for the dimensional extent of at least one cell of the system (Figs. 2-3; col. 5, line 55 through col. 6, line 33).

Regarding claim 19, Talaro discloses user equipment according to claim 10 (see above) wherein the processor is operable to select one of a plurality of different approximate geometrical configurations for the cell in dependence on the relationship between the values of said parameters (Figs. 2-3; col. 5, line 55 through col. 6, line 33).

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Regarding claim 20, which recites a cellular transmission network version of claim 10, see rationale as applied above.

Regarding claim 21, Talaro discloses a method of approximating cell geometry in a cellular transmission system, comprising providing data corresponding to first and second circular parameters for dimensional extents the cell (Figs. 2-3; col. 5, line 55 through col. 6, line 33), and selecting one of a plurality of different approximate geometrical configurations for the cell in dependence on a relationship that is a function of the values of said parameters (Fig. 3; col. 5, line 55 through col. 6, line 33).

Regarding claim 25, which recites a user equipment version of claim 21, see rationale as applied above.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 11, 22-24, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Bayder (Pub. No.: US 2004/0203841).

Regarding claim 2, Talaro discloses a method according to claim 1 (see above) including providing said data as a function of axial extents (Fig. 3), but fails to specifically disclose major and minor axial extents of an ellipse. Note, however, that Talaro discloses providing a midpoint and a radius of a circle (Fig. 3, reference 305). If the claimed major and

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minor axial extents of an ellipse are of equal lengths, then the ellipse is a circle, such as the one disclosed by Talarmino.

Nevertheless, in the same field of endeavor, Bayder discloses providing said data as a function of major and minor axial extents of an ellipse (paragraphs [0033], [0052]-[0054]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to provide the data of Talarmino as a function of major and minor axial extents of an ellipse as suggested by Bayder for the advantages of defining location areas in a non-limiting variety of geometrical shapes and encompassing a larger area.

Regarding claims 11, 22, and 26, which recite similar limitations to those of claim 2, see rationale as explained above.

Regarding claim 23, in the obvious combination, Bayder discloses including approximating the elliptical cell configuration as relatively large and small circles (paragraphs [0052]-[0054]).

Regarding claim 27, which recite similar limitations to those of claim 23, see rationale as explained above.

Regarding claim 24, in the obvious combination, Talarmino discloses including selecting between said elliptical cell configuration and a rectangular cell configuration based on the parameters (Fig. 3; col. 5, line 55 through col. 6, line 33; note that an ellipse can be a circle if both axial extents are of equal lengths).

Regarding claim 28, which recite similar limitations to those of claim 24, see rationale as explained above.

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10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Jonsson et al. (hereinafter “Jonsson”; Patent No.: US 5,513,246).

Regarding claim 4, Talaro discloses a method according to claim 3 (see above), including providing said data as a function of characteristics of relatively large and small circles (Figs. 2-3; col. 5, line 55 through col. 6, line 33), but fails to specifically disclose that are concentric. Note, however, that Talaro discloses two circles (Fig. 3, references 305 and 306) that are concentric (note that they both have the same center point P0).

Nevertheless, in the same field of endeavor, Jonsson discloses relatively large and small circles that are concentric (Fig. 1d, reference circles IV and V are concentric).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the circles of Talaro to be concentric as suggested by Jonsson for the advantages of having different sizes and surrounding a larger area from the same center point.

11. Claim 6-8, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Ching-Hsiang et al. (hereinafter “Ching-Hsiang”; Pub No.: US 2003/0017829).

Regarding claim 6, Talaro discloses a method according to claim 1 (see above), but fails to specifically disclose converting information corresponding to a rectangular approximation of the cell into said data.

However, in the same field of endeavor, Ching-Hsiang converting information corresponding to a rectangular approximation of the cell into said data (Fig. 7c; paragraph [0041]).



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Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to convert information corresponding to a rectangular approximation of the cell into said data of Talaro as suggested by Ching-Hsiang for the advantages of determining an enhanced cell coverage area (Ching-Hsiang: Abstract).

Regarding claims 14, which recite similar limitations to those of claim 6, see rationale as explained above.

Regarding claim 7, in the obvious combination, Ching-Hsiang discloses wherein the rectangular cell information is supplied in terms of latitude and longitude (paragraph [0041]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to supply the rectangular cell information in terms of latitude and longitude as suggested by Ching-Hsiang for the advantages of receiving geographical coordinates that are easily understood and widely available.

Regarding claim 8, in the obvious combination, Ching-Hsiang discloses including converting said information into said data in a different reference frame (Fig. 7c; paragraph [0041]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to convert said information into said data in a different reference frame as suggested by Ching-Hsiang for the advantages of geographically mapping to enhance the cell coverage area.

12. Claims 9 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in combination with Ching-Hsiang as applied to claims 7 and 14 above, and further in view of Applicant's Admitted Prior Art (hereinafter "AAPA") and Bayder.

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Regarding claim 9, Talaro in combination with Ching-Hsiang discloses a method according to claim 7 (see above), but fail to specifically disclose wherein the rectangular cell information is supplied by DVB-T SI (Service Information), and including converting said information into a Cartesian reference frame.

However, in the same field of endeavor, AAPA discloses wherein the rectangular cell information is supplied by DVB-T SI (Service Information) (See Specification: Background: page 2, lines 10-19).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to supply the rectangular information by DVB-T SI as suggested by AAPA for the advantages of being a well-known system that describes a Network Information Table (NIT), which may define all the cells in a DVB network and includes data corresponding to their frequencies and cell geography and its an engineering design choice.

In addition, in the same field of endeavor, Bayder discloses and including converting said information into a Cartesian reference frame (paragraph [0033]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include converting said information into a Cartesian reference frame as suggested by Bayder for the advantages of being well known geographical mapping (Bayder: paragraph [0033]).

Regarding claim 15, which recite similar limitations to those of claim 9, see rationale as explained above.

Regarding claim 16, in the obvious combination, AAPA discloses a mobile device operable to receive DVB transmissions (See Specification: Background: page 2, lines 10-19).

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Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to operate the mobile device of Talaro to receive DVB transmissions as suggested by AAAPA for the advantages of complying with a plurality of well known and widely available networks.

Regarding claim 17, in the obvious combination, Talaro discloses further operable as a telecommunications apparatus (col. 1, lines 6-25).

13. Claims 18 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaro in view of Hattori (cited in IDS filed on 12/14/2004).

Regarding claims 18 and 29, Talaro discloses user equipment according to claims 10 and 25, respectively (see above), but fails to specifically disclose including circuitry to provide data corresponding to its current location, and a processor to compare the current location data with the data corresponding to the cell for determining whether a handover is to be carried out.

However, in the same field of endeavor, Hattori discloses including circuitry to provide data corresponding to its current location, and a processor to compare the current location data with the data corresponding to the cell for determining whether a handover is to be carried out (paragraphs [0091]-[0093], [0098]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include in the user equipment of Talaro circuitry to provide data corresponding to its current location, and a processor to compare the current location data with the data corresponding to the cell for determining whether a handover is to be carried out as suggested by Hattori for the advantages of improving reliability of the handoff operation and decreasing unnecessary handoff processes (Hattori: paragraph [0015]).

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***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIVELISSE SANTIAGO-CORDERO whose telephone number is (571)272-7839. The examiner can normally be reached on Monday through Friday from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617

/MARIVELISSE SANTIAGO-CORDERO/

Examiner, Art Unit 2617